

FORM PTO-1449 (Rev. 2-3-2004)		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No.	Serial No.
		INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		02-434-A	10/600,129
				Applicant: Sarah S. Bacus et al.	
				Filing Date: 6/19/2003	Group: 1743

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
ALH	1.	6,235,883	05/22/2001	Jakobovits et al.			

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation
							Yes
							No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

ALH	2.	Alaoui-Jamali et al., "The role of ErbB-2 tyrosine kinase receptor in cellular intrinsic chemoresistance: mechanisms and implications," Biochem. Cell. Biol., 75:315-325, 1997.
	3.	Albanell et al., "Unraveling Resistance to Trastuzumab (Herceptin): Insulin-Like Growth Factor-I Receptor, a New Suspect," Journal of the National Cancer Institute, Vol 93(24):1830-31, 2001.
	4.	Altikok et al., "Heregulin Induces Phosphorylation of BRCA1 through Phosphatidylinositol 3-Kinase/AKT in Breast Cancer Cells," Journal of Biological Chemistry, 274(5):32274-32278, 1999.
	5.	Arteaga et al., " ¹⁸⁵ c-erbB-2 Signaling Enhances Cisplatin-induced Cytotoxicity in Human Breast carcinoma Cells: Association between an Oncogenic Receptor Tyrosine Kinase and Drug-induced DNA Repair," Cancer Research, 54:3758-3765, 1994.
	6.	Arteaga et al., "The Epidermal Growth Factor Receptor: From Mutant Oncogene in Nonhuman Cancers to Therapeutic Target in Human Neoplasia," J Clinical Oncology, Vol. 1999(18s):32s-40s, 2001.
↓	7.	Bacus et al., "Neu Differentiation Factor (Heregulin) Induces Expression of Intercellular Adhesion Molecule 1: Implications for Mammary Tumors," Cancer Res. 53:5251-5261, 1993.

EXAMINER	/Anne Holleran/ (12/20/2006)	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

ALH	8.	Bacus et al., "A Ligand for the erbB-2 oncogene Product (gp30) Induces Differentiation of Human Breast Cancer Cells," Cell Growth & Diff., 3:401-411, 1992.
	9.	Bacus et al., "AKT2 is frequently upregulated in HER-2/neu-positive breast cancers and may contribute to tumor aggressiveness by enhancing cell survival," Oncogene, 21:3532-3540, 2002.
	10.	Bacus et al., "Potential Use of Image Analysis for the Evaluation of Cellular Predicting Factors for Therapeutic Response in Breast Cancers," Analytical and Quantitative Cytology and Histology 19:316-328 (1997).
	11.	Bargmann et al., "Multiple Independent Activations of the neu Oncogene by a Point Mutation Altering the Transmembrane Domain of p185," Cell, Vol. 45:649-657, 1986.
	12.	Baselga et al., "Combined anti-EGF receptor and anti-HER2 receptor therapy in breast cancer: a promising strategy ready for clinical testing," Annals of Oncology 13:8-9, 2002.
	13.	Baselga et al., "Receptor Blockade with Monoclonal Antibodies as Anti-Cancer Therapy," Pharmacol Ther 64:127-154, 1994.
	14.	Basso et al., "Ansamycin antibiotics inhibit Akt activation and cyclin D expression in breast cancer cells that overexpress HER2," Oncogene, 21:1159-1166, 2002.
	15.	Bruns et al., "Blockade of the Epidermal Growth Factor Receptor Signaling by a Novel Tyrosine Kinase Inhibitor Leads to Apoptosis of Endothelial Cells and Therapy of Human Pancreatic Carcinoma," Cancer Research, 60:2926-2935, (2000).
	16.	Carpenter et al., "Epidermal Growth Factor," An. Review Biochem., 48:193-216, 1979.
	17.	Carraway et al., "The erbB3 Gene Product Is a Receptor for Heregulin," Journal Biological Chemistry, 269(19):14303-14306, 1994.
	18.	Carter et al., "Humanization of an anti-p185 ^{HER2} antibody for human cancer therapy," Proc. Natl Acad Sci USA 89:4285-4289, 1992.
	19.	Christensen et al., "High Levels of HER-2 Expression Alter the Ability of Epidermal Growth Factor Receptor (EGFR) Family Tyrosine Kinase Inhibitors to Inhibit EGFR Phosphorylation <i>in Vivo</i> ," Clinical Cancer Research, Vol. 7:4230-4238, 2001.
	20.	Cobleigh et al., "Multinational Study of the Efficacy and Safety of Humanized Anti-HER2 Monoclonal Antibody in Women Who Have HER2-Overexpressing Metastatic Breast Cancer That Has Progressed After Chemotherapy for Metastatic Disease," Journal of Clinical Oncology 17(9):2639-2648 (1999).
	21.	Coussens et al., "Tyrosine Kinase Receptor with Extensive Homology to EGF Receptor Shares Chromosomal Location with neu Oncogene," Science, 230(4730):1130-1139, 1985.
	22.	Demetri et al.; "Efficacy and Safety of IMATINIB Mesylate in Advanced Gastrointestinal Stromal Tumors," New England Journal of Medicine 347(7):472-480 (2002).
	23.	Druker et al., "Efficacy and Safety of Specific Inhibitor of the BCR-ABL Tyrosine Kinase in Chronic Myeloid Leukemia," New England Journal of Medicine 344(14):1031-1037 (2001).
	24.	Erlichman et al., "the HER Tyrosine Kinase Inhibitor CI1033 Enhances Cytotoxicity of 7-Ethyl-10-hydroxycamptothecin and Topotecan by Inhibiting Breast Cancer Resistance Protein-mediated Drug Efflux," Cancer Research 61:739-748, 2001.
↓	25.	Fujimoto-Ouchi et al., "Antitumor activity of combinations of anti-HER-2 antibody trastuzumab and oral fluoropyrimidines capecitabine/5'-dFUr in human breast cancer models," Cancer Chemother Pharmacol, 49:211-216, 2002.

EXAMINER	/Anne Holleran/ (12/20/2006)	DATE CONSIDERED
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

ALH	
	26. Fujimura et al., "Selective Inhibition of the Epidermal Growth Factor Receptor by ZD1839 Decreases the Growth and Invasion of Ovarian Clear Cell Adenocarcinoma Cells," Clinical Cancer Research, Vol. 8:2448-2454, 2002.
	27. Fukazawa et al., "Tyrosine Phosphorylation of Cbl upon Epidermal Growth Factor (EGF) Stimulation and Its Association with EGF Receptor and Downstream Signaling Proteins," Journal of Biological Chemistry 271(24):14554-14559 (1996).
	28. Hackel et al., "Epidermal growth factor receptors: critical mediators of multiple receptor pathways," Curr. Opin. Cell Biol. 11:184-189 (1999).
	29. Hancock et al., "A Monoclonal Antibody against the c-erbB-2 Protein Enhances the Cytotoxicity of cis-Diamminedichloroplatinum against Human Breast and Ovarian Tumor Cell Lines," Cancer Research, 51:4575-4580, 1991.
	30. Herbst et al., "Selective Oral Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor ZD1839 Is Generally Well-Tolerated and Has Activity in Non-Small-Cell Lung Cancer and Other Solid Tumors: Results of a Phase I Trial," Journal of Clinical Oncology, Vol. 20(18):3815-3825, 2002.
	31. Hidalgo et al., "Phase I and Pharmacologic Study of OSI-774, an epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor, in Patients With Advanced Solid Malignancies," Journal of Clinical Oncology, Vol 19(13):3267-3279, 2001.
	32. Holmes et al., "Identification of Heregulin, a Specific Activator of p185 ^{erbB2} ," Science, 256(5060):1205-1210, 1992.
	33. Huang et al., "Modulation of Radiation Response after Epidermal Growth Factor Receptor Blockade in Squamous Cell Carcinomas: Inhibition of Damage Repair, Cell Cycle Kinetics, and Tumor Angiogenesis," Clinical Cancer Res., Vol. 7:2166-2174, 2000.
	34. Hudziak et al., "p185 ^{HER2} Monoclonal Antibody Has Antiproliferative Effects In Vitro and Sensitizes human Breast Tumor Cells to Tumor Necrosis Factor," Mol. Cell. Biol., 9:1165-1172, 1989.
	35. Klapper et al., "Tumor-inhibitory Antibodies to HER-2/ErbB-2 May Act by Recruiting c-Cbl and Enhancing Ubiquitination of HER-2," Cancer Research, 60:3384-3388, 2000.
	36. Klapper et al., "A subclass of tumor-inhibitory monoclonal antibodies to ErbB-2/HER2 blocks crosstalk with growth factor receptors," Oncogene 14:2099-2109, 1997.
	37. Kraus et al., "Isolation and characterization of ERBB3, a third member of the ERBB / epidermal growth factor receptor family: Evidence for overexpression in a subset of human mammary tumors," Proc. Natl. Acad. Sci. USA, 86:9193-9197, 1989.
	38. Lange et al., "Convergence of Progesterone and Epidermal Growth Factor Signaling in Breast Cancer," Journal of Biological Chemistry 273(47):31308-31316 (1998).
	39. Liu et al., "Heregulin Regulation of Akt/Protein Kinase B in Breast Cancer Cells," Biochemical and Biophysical Research Communications, 261:897-903, 1999.
	40. Mendelsohn & Baselga, "The EGF receptor family as targets for cancer therapy," Oncogene 19:6550-6565 (2000).
	41. Mendelsohn, "The epidermal growth factor receptor as a target for therapy with antireceptor monoclonal antibodies," Seminars in Cancer Biology, Vol. 1:339-344, 1990.
	42. Moasser et al., "The Tyrosine Kinase Inhibitor ZA1839 ("Iressa") Inhibits HER2-driven Signaling and Suppresses the Growth of HER2-overexpressing Tumor Cells," Cancer Research, 61:7184-7188, 2001.
▼	43. Munster et al., "Degradation of HER2 by Ansamycins Induces Growth Arrest and Apoptosis in Cells with HER2 Overexpression via a HER3, Phosphatidylinositol 3'-Kinase-AKT-dependent Pathway," Cancer Research 62:3132-3137, 2002.

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

ALH	44.	Normanno et al, "Cooperative inhibitory effect of ZA1839 (Iressa) in combination with trastuzumab (Herceptin) on human breast cancer cell growth," Annals of Oncology, 13:65-72, 2002.
	45.	Olayioye et al., "ErbB-1 and ErbB-2 Acquire Distinct Signaling Properties Dependent upon Their Dimerization partner," Molecular and Cellular Biology 18(9):5042-5051 (1998).
	46.	Peles et al., "Isolation of the Neu/HER-2 Stimulatory Ligand: A 44 kd Glycoprotein That Induces Differentiation of Mammary Tumor Cells," Cell, 69:205-216, 1992.
	47.	Peles et al., "Cell-type specific Interaction of Neu differentiation factor (NDF/heregulin) with Neu/HER-2 suggests complex ligand – receptor relationships," EMBO Journal; 12(3):961-71, 1993.
	48.	Pietras et al., "Antibody to HER-2/neu receptor blocks DNA repair after cisplatin in human breast and ovarian cancer cells," Oncogene, 9:1829-1838, 1994.
	49.	Pinkas-Kramarski et al., "The oncogenic ErbB-2/ErbB-3 heterodimer is a surrogate receptor of the epidermal growth factor and betacellulin," Oncogene, 16:1249-1258, 1998.
	50.	Pinkas-Kramarski et al., "Brain neurons and glial cells express Neu differentiation factor / hereregulin: A survival factor for astrocytes," Proc. Natl. Acad. Sci. USA, 91:9387-9391, 1994.
	51.	Pinkas-Kramarski et al., "Neu Differentiation Factor/Neuregulin Isoforms Activate Distinct Receptor Combinations," The Journal of Biological Chemistry, Vol. 271(32):19029-19032, 1996.
	52.	Plowman et al., "Heregulin Induces tyrosine phosphorylation of HER4/p180 ^{erbB4} ," Nature, 366:473-475, 1993.
	53.	Sachs et al., "Cell Differentiation and Bypassing of Genetic Defects in the Suppression of Malignancy," Cancer Res., 47:1981-1986, 1987.
	54.	Semba et al., "A v-erbB-related protooncogene, c-erbB-2, is distinct from the c-erbB-1/epidermal growth factor-receptor gene and is amplified in a human salivary gland adenocarcinoma," Proc. Natl. Acad. Sci., 82:6497-6501, 1985.
	55.	Shak, "Overview of the Trastuzumab (Herceptin) Anti-HER2 Monoclonal Antibody Clinical Program in HER2-Overexpressing Metastatic Breast Cancer," Seminars in Oncology, Vol. 26(4, Suppl 12):71-77, 1999.
	56.	Slamon et al., "Human Breast Cancer: Correlation of Relapse and Survival with Amplification of the HER-2/neu Oncogene," Science, 235(4785):177-182, 1987.
	57.	Sliwkowski et al, "Nonclinical Studies Addressing the Mechanism of Action of Trastuzumab (Herceptin)," Seminars in Oncology, 26(4, Suppl 12):60-70, 1999.
	58.	Stancovski et al., "Mechanistic aspects of the opposing effects of monoclonal antibodies to the ERBB2 receptor on tumor growth," Proc Natl Acad Sci USA 88:8691-8695, 1991.
	59.	Tagliabue et al., "Selection of monoclonal antibodies which induce internalization and phosphorylation of p185 ^{HER2} and growth inhibition of cells with HER2/NEU gene amplification," Int. J. Cancer, 47:933-937, 1991.
	60.	Tzahar et al., "ErbB-3 and ErbB-4 Function as the Respective Low and High Affinity Receptors of All Neu Differentiation Factor/Hereregulin Isoforms," Journal of Biological Chemistry, 269(40):25226-25233, 1994.
	61.	Tzahar et al., "A Hierarchical Network of Interreceptor Interactions Determines Signal Transduction by Neu Differentiation Factor/Neuregulin and Epidermal Growth Factor," Molecular and Cellular Biology 16(10):5276-5287 (1996).
▼	62.	Vogel et al., "Efficacy and Safety of Trastuzumab as a Single Agent in First-Line Treatment of HER2-Overexpressing Metastatic Breast Cancer," Journal of Clinical Oncology, Vol 20(3):719-726, 2002.

EXAMINER	/Anne Holleran/ (12/20/2006)	DATE CONSIDERED
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

ALH		
	63.	Vogel et al., "First-Line Herceptin® Monotherapy in Metastatic Breast Cancer," Oncology, 61(suppl 2):37-42, 2001.
	64.	Xia et al. "Anti-tumor activity of GW572016: a dual tyrosine kinase inhibitor blocks EGF activation of EGFR/erbB2 and downstream Erk1/2 and AKT pathways," Oncogene 21:6255-6263 (2002).
	65.	Xing et al., "The Ets protein PEA3 suppresses HER-2/neu overexpression and inhibits tumorigenesis," Nature Med., 6:189-195, 2000.
	66.	Yang X et al., "Development of ABX-EGF, a fully human anti-EGF receptor monoclonal antibody, for cancer therapy," Crit Rev Oncol Hematol 38(1):17-23 (2001).
	67.	Yang et al., "Eradication of Established Tumors by a Fully Human Monoclonal Antibody to the Epidermal Growth Factor Receptor without Concomitant Chemotherapy," Cancer Research 59(6):1236-1243 (1999).
↓	68.	Ye et al., "Augmentation of a humanized Anti-HER2 mAb 4D5 induced growth inhibition by a human-mouse chimeric anti-EGF receptor mAb C225," Oncogene, 18:731-738, 1999.

EXAMINER

/Anne Holleran/ (12/20/2006)

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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 PTO/SB/08a (07-05) Approved for use through 07/31/06. OMB 0651-0031		U.S. Department of Commerce U.S. Patent and Trademark Office		Atty. Docket No. 02-434-A	Serial No. 10/600,129
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)				Filing Date: 06-19-2003	Group: 1643
				Applicant: Sarah S. Bacus et al.	
				Examiner: Anne L. Holleran	Confirmation No: 9778

U.S. PATENT DOCUMENTS

Examiner Initial	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If known)			
ALH	1.	5,726,023	03-10-1998	CHEEVER, et al.	
	2.	5,763,164	06-09-1998	CALENOFF	
↓	3.	5,869,445	02-09-1999	CHEEVER, et al.	
	4.	6,127,126	10-03-2000	VOGELSTEIN, et al.	

FOREIGN PATENT DOCUMENTS

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		Country Code ³ "Number ⁴ "Kind Code ⁵ (If known)				

NON PATENT LITERATURE DOCUMENTS

Examiner Initial	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
ALH	5.	CIARDIELLO, et al., "A Novel Approach in the Treatment of Cancer: Targeting the Epidermal Growth Factor Receptor", Clinical Cancer Research 7:2958-2970, 2001.	
↓	6.	Database USPT 5726023.	
↓	7.	Database USPT 5763164.	

EXAMINER	/Anne Holleran/ (12/20/2006)	DATE CONSIDERED
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The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14.

FORM PTO-1449 PTO/SB/08a (07-05) Approved for use through 07/31/06. OMB 0651-0031		U.S. Department of Commerce U.S. Patent and Trademark Office	Atty. Docket No. 02-434-A	Serial No. 10/600,129
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Examiner Initial	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. ^{T²}
ALH	8.	Database USPT 5869445.
	9.	Database USPT 6127126.
	10.	SHIN, et al., "Epidermal Growth Factor Receptor-targeted Therapy with C225 and Cisplatin in Patients with Head and Neck Cancer", Clinical Cancer Research 7:1204-1213, 2001
↓	11.	SOUKOS, et al., "Epidermal Growth Factor Receptor-targeted Immunophotodiagnosis and Photoimmunotherapy of Oral Precancer in Vivo", Cancer Research 61:4490-4496, 2001.

EXAMINER	/Anne Holleran/ (12/20/2006)	DATE CONSIDERED
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